

Glossary

Science 5th Grade

酸 **Acid** is a substance that when combined with a base can form a salt. (p23)

气团(氣團) **Air mass** is a large body of air with similar properties all through it. (p218)

气囊(氣囊) **Air Sacs** is the thin-walled sacs in the lungs where oxygen enters the blood and carbon dioxide leaves the blood. (p132)

合金 **Alloy** is a metal made by mixing two or more metallic elements. (p19)

海拔 **Altitude** is the height above Earth's surface. (p193)

风速表/仪 (風速表/儀) **Anemometer** is a tool that measures wind speed. (p233)

水道/输水管道 (輸水管道) **Aqueduct** is a system of pipelines that carries water from a river or lake to the area where it is needed. (p183)

含水层(含水層) **Aquifer** is the layer of rock and soil that groundwater flows through. (p177)

序列 **Array** is an arrangement like a grid. (p13)

动脉 (動脈) **Artery** is a blood vessel that carries blood away from the heart to other parts of the body. (p128)

小行星 **Asteroid** is a rocky object up to several hundred kilometers wide that revolves around the Sun. (p128)

大气层(大氣層) **Atmosphere** is all of the air around Earth. (p211)

气压 (氣壓) **Atmospheric pressure** is the weight of air pushing down on an area. (p211)

原子 **Atom** is the smallest particle of an element with the same properties of the element. (p12)

原子序数 (原子序數) **Atomic number** is the number of protons in the nucleus of an atom; the single most important property of an element. (p12)

心房 **Atrium** is the upper part of each side of the heart; plural atria. (p130)

天平秤, 平衡 **Balance** is a tool used to measure mass. (p10)

气压计 (氣壓計) **Barometer** is a tool that measures air pressure. (p232)

碱 (鹼) **Base** is a substance that when combined with an acid can form a salt. (p23)

膀胱 **Bladder** is the sac that collects and stores urine formed by the kidneys. (p140)

血管 **Blood vessels** are the tube in which blood flows throughout the body. (p127)

沸点 (沸點) **Boiling point** is the temperature at which a liquid becomes a gas. (p52)

脆的 **Brittle** breaks easily. (p15)

支气管 (支氣管) **Bronchi** are the two tubes that lead from the trachea to the lungs; singular bronchus. (p132)

小支气管 (小支氣管) **Bronchiole** is a small tube in the lungs that carries air to air sacs. (132)

C

微血管 **Capillary** is the smallest kind of blood vessels. (p128)

细胞 (細胞) **Cell** is the basic building block of living things. (p95)

细胞壁 (細胞壁) **Cell wall** is a rigid structure surrounding a plant cell membrane that gives the cell support. (p97)

细(細)胞呼吸作用 **Cellular respiration** is the process by which cells break down sugar and oxygen to release energy, water, and carbon dioxide. (p110)

化学变化 (化學變化) **Chemical change** is a change in which one kind of matter changes into a different kind of matter which different properties. (p45)

化学反应方程式 (化學反應方程式)

Chemical equation is a statement of chemical symbols that shows what happens during a chemical reaction. (P54)

化学性质 (化學性質) **Chemical property** is any one or more substances change into other substances with different chemical properties. (p11)

化学反应 (化學反應) **Chemical reaction** is when one or more substances change into other substances with different chemical properties. (p45)

叶绿素（葉綠素） **Chlorophyll** is a green substance that allows plants to make their own food. (p108)

叶绿体（葉綠體） **Chloroplast** is a structure in plant cells that stores chlorophyll. (p108)

循环系统（循環系統） **Circulatory system** is the system of the body that transports nutrients and oxygen to cells and carries away cell wastes. (p127)

分类（分類） **Classify** is to arrange or sort objects, events, or living things according to their properties. (p80)

寒流 **Cold front** is the boundary between two air masses where the cold air mass is moving into the area. (220)

收集资(資)料 **Collect data** is to gather observations and measurements into graphs, tables, charts, or labeled diagrams. (p76)

结肠（結腸） **Colon** is part of the digestive system that stores undigested food until it can be removed from the body. (p138)

化合反应（應） **Combination reaction** is a chemical reaction in which reactants come together to form new products. (p56)

彗星 **Comet** is a frozen mass of ice and dust with a tail up to 80 million kilometers long that is in orbit around the Sun. (p271)

传达(傳達) **Communicate** is to use words, pictures, graphs, tables, charts, and labeled diagrams to share information. (p79)

化合物 **Compound** is a kind of matter made of a chemical combination of two or more elements. (p20)

结论（結論） **Conclusion** is a decision reached after thinking about facts and details. (p43)

凝结(結) **Condensation** is the process by which particles leave a gas and become a liquid. (p189)

导热/电（導熱/電） **Conduct** is to let heat and electricity pass through. (p11)

节约（節約） **Conservation** is the process of using a resource wisely so that it lasts longer. (p184)

控制变(變)量 **Controlled variable** is a variable that must not be changed in an experiment to have a fair test. (p77)

空气对流(空氣對流) **Convection current** is the rising and sinking of matter in a circular pattern caused by temperature differences. (p214)

结晶体 (結晶體) **Crystal** is a group of particles arranged in a regular pattern with flat sides. (p22)

气旋 (氣旋) **Cyclone** is a wind that spirals inward around an area of low pressure. (p222)

D

分解反应(應) **Decomposition reaction** is a chemical reaction in which reactants split apart to form products. (p56)

因变(變)量 **Dependent variable** is something you measure or observe in an experiment. (p77)

详细资料(詳細資料) **Details** are individual pieces of information that support a main idea. (p171)

露珠 **Dew** is water vapor that condenses on cold surfaces during the night. (p189)

横隔膜 **Diaphragm** is the muscle below your lungs that contracts to let air into the lungs and relaxes to push air out of them. (p132)

消化 **Digestion** is the process that changes food into a form that the body can use. (p136)

消化系统 **Digestive system** is the system of the body that takes in food and breaks it down into a form cells can use. (p136)

溶解 **Dissolve** is to spread throughout a liquid. (p23)

延展性 **Ductile** is able to be made into wires or hammered into sheets. (p18)

矮小的行星 **Dwarf** planet is small, round object that orbits the Sun. (p276)

E

圣婴现象(聖嬰現象) **EL Nino** is a cycle of changes in the surface temperature of the Pacific Ocean that brings especially wet and dry seasons to many places in the world. (p248)

电子 (電子) **Electron** is the particle in an atom that has a negative charge. (p12)

元素 **Element** is one of more than 100 basic kinds of matter that cannot be broken into smaller pieces through physical or chemical processes. (p9)

橢圓形（橢圓形） **Ellipse** is a shape like an oval. (p260)

赤道 **Equator** is the imaginary line that separates the northern and southern halves of Earth. (p216)

食道 **Esophagus** is the tube that carries food from the mouth to the stomach. (p136)

估計(計) **Estimate** and measure are to tell what you think an object's measurements are and then measure it in units. (p154)

蒸发(發) **Evaporation** is the process by which particles leave a liquid and became a gas. (p52)

排泄系統(統) **Excretory system** is the system of the body that removes waste. (p101)

实验研究(實驗研究) **Experiment** is to use scientific methods to test a hypothesis. (p76)

探索 **Explore** is to study a scientific idea in a hands-on manner. (p6)

F

雾（霧） **Fog** is a cloud at ground level. (p193)

天气预报（天氣預報） **Forecast** is a predication of what may happen in the future based on past patterns. (p232)

锋面(鋒面)* **Front** is a boundary between two air masses. (p220)

结霜(結霜) **Frost** is water vapor that deposits as ice crystals on surfaces at temperatures below freezing. (p189)

G

一般化 **Generalization** is an inference that applies that outcome of one situation to other situations. (p93)

冰川 **Glacier** is a long stretch of ice that flows slowly downhill or spreads over a land area. (p179)

葡萄糖 **Glucose** is a substance made during photosynthesis and used during cellular respiration; a type of sugar. (104)

地下水 **Groundwater** is rain or melted snow that seeps into the ground. (p177)

H

冰雹 **Hail** is frozen rain that is repeatedly blown upward into a cloud gaining layers of ice until it is so heavy it falls to the Earth. (p194)

心腔室 **Heart chambers** are the parts of the heart. (p130)

湿度（濕度） **Humidity** is the amount of water in the air. (p194)

飓风（颶風） **Hurricane** is a dangerous cyclonic storm made up of swirling bands of thunderstorms with wind speeds of at least 119km per hour that forms over warm ocean water. (p228)

水循环（環） **Hydrologic cycle** is the repeated movement of water through the environment in different forms; also called the water cycle. (p188)

水圈 **Hydrosphere** is all of the waters of the Earth. (p173)

假设（假設） **Hypothesis** is a statement of one possible way to solve a problem or answer a question. (p76)

I

识别和控制变量（識別和控制變量） **Identify and control variables** are to change one thing, but keep all the other factors the same. (p76)

自变（變）量 **Independent variable** is something you change in an experiment. (p78)

由此推断（斷） **Infer** is to draw a conclusion or make a reasonable guess based on what you have learned or what you know. (p7)

推理，推论（論） **Inference** is a conclusion based on facts, experiences, observations, or knowledge. (p7)

数据解读（數據解讀） **Interpret data** is to use the information you have collected to solve problems or answer questions. (p79)

调（調）查 **Investigate** is to solve a problem or answer a question by following an existing procedure or an original one. (p32)

K

肾（腎） **Kidney** is one of a pair of organs that removes waste from the blood. (p140)

L

大肠（腸） **Large intestine** is a wider tube connected to the small intestine that removes water from undigested food and stores this waste until it is removed from the body. (p138)

纬（緯）度 **Latitude** is a measure of how far a place is north or south of the equator. (p216)

闪电（閃電） **Lightning** is a large electrical spark moving between areas of opposite charge. (p225)

肺 **Lungs** are an organ of the respiratory system that contains bronchioles and air sacs. (p132)

M

大意 **Main idea** is the most important idea in a passage. (p171)

可锻铸，玛钢（可鍛鑄，瑪鋼） **Malleable** can be bent and shaped without breaking. (p 18)

质（質）量 **Mass** is a measure of the amount of matter in an object. (p10)

金属（屬） **Metal** is an element or combination of elements that are usually shiny can be bent and shaped without breaking, can be made into wire, and conduct heat and electricity. (p15)

半金属（屬） **Metalloid** is an element that has some properties of both metals and nonmetals; also called semimetal. (p15)

气象学家（氣象學家） **Meteorologist** is a scientist who uses weather data to forecast the weather. (p235)

线粒体（線粒體） **Mitochondria** are the parts of a cell where sugar is broken down to release energy in a process called cellular respiration; singular mitochondrion. (p96)

混合物 **Mixture** is two or more substances combined while keeping their own properties. (p26)

模型 **Model** is a sketch, diagram, or object that represents something else. (p198)

分子 **Molecule** is the smallest part of a substance made from more than one atom that still has the properties of the substance. (p13)

季风（風） **Monsoon** is a wind that changes direction with the seasons. (p230)

粘(黏)液 **Mucus** is a sticky, thick fluid which coats parts of the respiratory system trapping dust and germs. (p132)

多细胞 **Multicellular** is having many cells. (p95)

N

中子 **Neutron** is the particle in an atom that has no charge. (p12)

非金属(屬) **Nonmetal** is an element that is usually brittle, does not conduct heat or electricity well, and cannot be made into wires or hammered into sheets. (p15)

原子核, 细胞核 **Nucleus** is (1) the center of an atom (2) the central part of a cell that directs the cell's activities and stores information to pass on to new cells (p96) (3) a mass of dust and frozen water and gases at the center of a comet. (p270)

O

观(觀)察 **Observe** is to use your senses to find out about objects, events, or living things. (p42)

器官 **Organ** is a group of different tissues that join together to form one structure. (p98)

器官系统 **Organ system** is group of organs and tissues that work together to carry out a life process. (p99)

P

元素周(週)期表 **Periodic table of elements** is a table containing all the elements organized by atomic number and chemical properties. (p14)

韧(韌)皮部 **Phloem** is tubes that carry sugar from a plant's leaves to the rest of the plant. (p103)

光合作用 **Photosynthesis** is the process by which plants use water, carbon dioxide, and energy from sunlight to produce oxygen and sugar. (p108)

物理变(變)化 **Physical change** is a change in which matter keeps the same chemical properties; a change in size, shape, volume or state of matter. (p45)

物理性质(質) **Physical property** is any property of a material that can be seen or measured without changing the material. (p10)

行星 **Planet** is a large, round object that orbits the Sun and has cleared the neighborhood round its orbit. (p261)

极地地区（極地地區） **Polar region** is area near the North or South Pole that is very cold. (p217)

降水量 **Precipitation** is water that falls from clouds as rain, hail, sheet, or snow. (p189)

产(產)物 **Product** is a substance made by a chemical reaction. (p54)

质(質)子 **Proton** is the particle in an atom that has a positive charge. (p12)

R

雷达(達) **Radar** is a technology used to collect weather data. (p233)

量雨器 **Rain gauge** is a tool that measures the amount of rain that has fallen. (p233)

反应(應)物 **Reactant** is a substance used in a chemical reaction. (p54)

废水处理（廢水處理） **Reclamation** is when wastewater from homes or business is treated and used again for purposes other than drinking. (p185)

回收 **Recycle** is to treat something so that it can be used again. (p176)

置换反应(應) **Replacement reaction** is a chemical reaction in which the parts of one or more reactants switch places. (p57)

呼吸系统 **Respiratory system** is the system of the body that takes in oxygen and removes carbon dioxide. (p132)

径(徑)流 **Runoff** is water moving downhill. (p182)

S

含盐(鹽)量 **Salinity** is a measure of the amount of salt in water. (p174)

盐(鹽) **Salt** is a compound formed by a chemical reaction between an acid and a base; often refers to sodium chloride. (p22)

卫(衛)星 **Satellite** is an object that orbits another object in space. (p262)

科学(學)方法 **Scientific method** is organized ways of finding answers and solving problems. (p76)

海平面 **Sea level** is the level of the surface of an ocean. (p173)

严重雷暴预警（嚴重雷暴預警） **Severe thunderstorm warning** is a message sent out to an area where severe thunderstorms *have formed* letting people know that they should get inside as soon as possible. (p225)

严重雷暴观测（嚴重雷暴觀測） **Severe thunderstorm watch** is a message sent out to an area where severe thunderstorms with high winds and hail *might* form. (p225)

恶劣天气（惡劣天氣） **Severe weather** is weather that can cause damage. (p224)

雨雪 **Sleet** is frozen raindrops that fall as precipitation. (p194)

小肠（腸） **Small intestine** is a narrow winding tube where food is changed chemically and broken down into small particles that can be absorbed into the blood. (p138)

太阳能系统（太陽能系統） **Solar system** is a system that includes the Sun and its planets, along with many moons, asteroids, and comets. (p257)

可溶性 **Solubility** is the amount of a substance that can be dissolved by a solvent at a certain temperature. (p28)

溶剂（劑） **Solvent** is the substance in a solution in which that solute dissolves. (p28)

星, 恒星 **Star** is a huge ball of very hot gas that gives off energy. (p257)

静止锋（鋒） **Stationary front** is the boundary between two air masses that does not move very much. (p257)

升华（昇華） **Sublimation** is the process by which a solid changes directly into a gas. (p53)

T

电报（電報） **Telegraph** is a machine that allows people to send messages long distances. (p234)

回火 **Tempered** is describes air that is warmed in winter and cooled in summer because it is near a large body of water. (p230)

细胞组织（細胞組織） **Tissue** is a group of the same kind of cells that work together to do a job. (p98)

龙卷风（龍捲風） **Tornado** is a rotating column of air that extends from a thunderstorm to the ground. (p226)

气(氣)管 **Trachea** is the tube that carries air from the larynx to the lungs. (p132)

U

尿 **Urine** is the mix of waste and water taken out of the blood by the kidneys and stored in the bladder. (p140)

V

液泡 **Vacuole** is a part of a cell that stores water and nutrients. (p96)

瓣膜 **Valve** is a part of the heart that opens and closes to make sure the blood flows in the right direction. (p130)

叶脉（葉脈），脉管（脈管） **Vascular** is describes the system of tubes in certain plants that transports water and minerals. (p102)

静脉（靜脈） **Vein** is a blood vessel the carries blood toward the heart. (p128)

心室 **Ventricle** is the lower part of each side of the heart. (p131)

小肠绒毛组织（小腸絨毛組織） **Villi** are the tiny finger-shaped structures that cover the walls of the small intestine. (p138)

W

暖锋(鋒)前 **Warm front** is the boundary between two air assess where the warm air mass is moving into the area. (p220)

水循环（環） **Water cycle** is the repeated movement of water through the environment in different forms; also called the hydrologic cycle. (p188)

地下水位 **Water table** is the top level of the groundwater in an aquifer. (p177)

水蒸气(氣) **Water vapor** is the gas form of water. (p188)

水渠 **Water shed** is the area from which water drains into a river. (p178)

重量，体(體)重 **Weight** is a measure of the pull of gravity on an object. (p10)

风（風） **Wind** is convection currents in the atmosphere. (p215)

木质(質)部 **Xylem** is tubes that carry water and minerals from a plant's roots to its leaves.
(p102)

<http://www.cwb.gov.tw/V7/knowledge/encyclopedia/me020.htm>

*當冷暖兩種不同性質之氣團相遇時，其交界面即稱為鋒面，而鋒面通常朝冷空氣方向傾斜，當暖空氣向冷空氣推移，使其交界面（**鋒面**）通過地區發生暖空氣取代冷空氣現象時，此鋒面即是暖鋒，反之，若是發生冷空氣取代暖空氣時即是冷鋒。由於暖空氣均比冷空氣為輕，因此要暖空氣去推走冷空氣，必須要有較廣之水平推動力才行，台灣位於副熱帶，緯度較低，空氣垂直運動較頻繁，溫度亦較中緯度空氣為高，暖空氣很容易就被舉升起來，在地面上要取代冷空氣十分困難，故極少有暖鋒現象發生。但在中緯度地區之低氣壓系統則常伴隨有冷鋒及暖鋒並存的現象。